

## ABSTRACT

This invention teaches a hot runner injection molding apparatus for co-injecting at least two different materials into a mold cavity. A pin valve gated hot runner nozzle  
5 includes separate melt channels for each material and a melt chamber for accurately metering one of the materials. The melt chamber is in communication with an injection piston. The controlled movement of the valve pin and of the injection piston insures that the desired amount of a first and at least a second material is injected into the mold cavity. Depending of the composition and the processing window of the  
10 materials, the co-injection hot runner nozzle is in communication with either a single or multiple manifolds.